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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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01/14/2004

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EXAMINER

MAUNG, ZARNI

ART UNIT

PAPER NUMBER

2154

DATE MAILED: 01/14/2004

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/596,365

Applicant(s)

HORVITZ ET AL.

Examiner

Zarni Maung

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. This action is responsive to the amendment and remarks filed on November 4, 2003. Claims 1 – 30 are presented for further examination.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 – 12 and 14 – 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Newell et al., U.S. Patent No. 4,466,232.

4. As to claims 1 and 30, Newell teaches the invention as claimed, including a mechanism designed to access and store information regarding context information and notification parameters, the notification parameters including at least one of a relevance parameter, a novelty parameter, and a fidelity parameter (col. 2, lines 29-47; output parameters in variety of variables which are presented in appropriate formats); at least one notification source, each source designed to generate notifications (col. 2, lines 37 – 38); at least one notification sink, each sink designed to receive the notifications (col. 2, lines 39, 62 - 63); and a notification manager designed to convey the notifications generated by the at least one notification source to the at least one notification sink based on the information stored in the mechanism (col. 2, lines 50 – 59.)

5. As to claim 19, Newell teaches the invention as claimed, including a mechanism designed to access and store information regarding context information and notification parameters (col. 2, lines 29 – 30, 43 – 47), comprising notification parameters store storing default notification preferences for a user (col. 6, lines 8 – 10) and a user context mechanism designed to determine a current context of the user, based on at least one context source (col. 5, lines 45 – 60; col. 5, line 67 – col. 6, line 5.) ; at least one notification source, each source designed to generate notifications intended for the user (col. 2, lines 37 – 38); at least one notification sink, each sink designed to provide the notifications to the user (col. 2, lines 39, 62 - 63); and a notification manager designed to convey the notifications generated by the at least one notification source to the at least one notification sink based on the information stored in the mechanism (col. 2, lines 50 – 59.)

6. As to claim 24, Newell teaches the invention as claimed, including a user mechanism designed to store information regarding notification parameters of a user (col. 2, lines 29 – 30, 43 – 47); at least one notification source (col. 2, lines 37 – 38), each source designed to generate notifications and having parameters associated with it representing at least three of an importance of a current notification generated by the notification source indicating value of information contained in the current notification and a time criticality of the current notification generated by the notification source indicating time-dependent decay of the value of the information contained in the current

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notification (col. 2, lines 24-49; output parameters in variety of variables which are presented in appropriate formats; col. 10, line 67 – col. 11, line 3); at least one notification sink, each sink designed to receive the notifications (col. 2, lines 39, 62 - 63) and having parameters associated with it representing at least one of a device class of the notification sink indicating a type of device that the notification sink is (Fig. 5) and a cost of disruption of the notification sink indicating a disruption cost incurred by the entity when receiving information contained within a notification conveyed to the notification sink (Fig. 5); and a notification manager designed to convey the notifications generated by the at least one notification source to the at least one notification sink based on the information stored in the mechanism (col. 2, lines 50 – 59.)

7. As to claim 28, Newell teaches generating one or more notifications intended for a user by one or more notification sources (col. 3, lines 7 – 8); receiving the one or more notifications by a notification manager (col. 3, lines 7 – 8); generating contextual information by a user mechanism, the mechanism also storing information regarding notification parameters of the user (col. 2, lines 26 – 29); receiving the contextual information by the notification manager (col. 2, lines 26 – 29); determining which of the notifications to convey to which of one or more notification sinks by the notification manager, based on at least one or more of the contextual information and the information regarding the notification parameters of the user (col. 2, lines 37 – 39); and conveying the notifications to the one or more notification sinks by the notification manager (col. 2, line 41.)

8. As to claim 2, Newell teaches that the context information and notification parameters are for an entity (col. 2, lines 25 – 26.)
9. As to claim 3, Newell teaches that the entity comprises a user (col. 2, lines 25 – 26.)
10. As to claim 4, Newell teaches that the notifications generated by the at least one notification source are intended for an entity (col. 2, lines 25 – 26.)
11. As to claim 5, Newell teaches that the notifications received by the at least one sink are to be provided to an entity (col. 2, lines 25 – 26.)
12. As to claim 6, Newell teaches that the mechanism comprises a notification parameters store storing default notification preferences for an entity as a profile (col. 6, lines 8 – 10.)
13. As to claim 7, Newell teaches that the mechanism comprises a user mechanism (col.5, line 67 – col. 6, line 5.)

14. As to claims 8 and 29, Newell teaches that the user mechanism comprises a user context mechanism designed to determine a current context of the user, based on at least one source (col. 5, lines 45 – 60; col. 5, line 67 – col. 6, line 5.)

15. As to claims 9 and 20, Newell teaches that the at least one context source comprises one or more of visual information of the user (col. 5, lines 19 – 20), desktop information of the user (col. 4, lines 46 – 47), current time and day (col. 6, lines 5 – 6), and location of the user (col. 5, line 50)

16. As to claim 10, Newell teaches that the context mechanism is more specifically designed to determine the current context based on the at least one context source by utilizing one or more of a statistical model (col. 9, lines 5 – 10), direct access of user location and activity (col. 5, line 50), and real-time user specification of user state (col. 5, line 67 – col. 6, line 5.)

17. As to claim 11, Newell teaches that the notifications generated by the at least one notification source comprises system messages (col. 3, lines 51 – 52.)

18. As to claims 12 and 21, Newell teaches that each notification source has parameters associated with it representing at least one of an importance of a current notification generated by the notification source indicating value of information contained in the current notification; and a time criticality of the current notification

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generated by the notification source indicating time-dependent decay of the value of the information contained in the current notification (col. 10, line 67 – col. 11, line 3.)

19. As to claims 14 and 22, Newell teaches that the at least one notification source comprises at least one of a pull-type notification source and a push-type notification source (col. 3, lines 37 – 38.)

20. As to claim 15, Newell teaches that the at least one notification sink comprises one of more of a desktop (col. 4, lines 50 – 51), a cellular phone (Fig. 5, reference character 504), a pager (Fig. 5, reference character 502), and an automotive computerized device (Fig. 5, reference character 506.)

21. As to claims 16 and 23, Newell teaches that each notification sink has parameters associated with it representing at least one of a device class of the notification sink indicating a type of device that the notification sink is (Fig. 5); and a cost of disruption of the notification sink indicating a disruption cost incurred by the entity when receiving information contained within a notification conveyed to the notification sink (Fig. 5.)

22. As to claims 17 and 26, Newell teaches that the notification manager is more specifically designed to determine which of the notifications from the at least one

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notification source should be conveyed to which of the at least one notification sink, based on the information stored by the mechanism (col. 10, lines 50 – 54.)

23. As to claims 18 and 27, Newell teaches that the notification manager is further designed to perform a decision-theoretic analysis of the notifications from the at least one notification source based on the information stored by the mechanism to determine which of the notifications from the at least one notification source should be conveyed to which of the at least one notification sink, such that the notification manager is designed to infer encountered uncertainties (col. 8, lines 52 – 57; col. 7, lines 54 – 59.)

24. As to claim 25, Newell teaches a database storing default notification preferences for an entity as a profile (col. 6, lines 8 – 10) and a context mechanism designed to determine a current context of the user, based on at least one context source (col. 5, lines 45 – 60; col. 5, line 67 – col. 6, line 5.)

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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26. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Newell as applied to claim 1 above, and further in view of Lefeber et al., U.S. Patent Application Pub. No. 2002/0046299.

27. As to claim 13, Newell teaches the invention as claimed with respect to claim 1 above. However, Newell fails to teach that each notification source has parameters associated with it representing at least one of a message class of a current notification generated by the notification source indicating a type of communication of the current notification; a relevance of the current notification indicating a likelihood of the relevance of information contained in the current notification; a novelty of the current notification indicating a likelihood of whether an entity already knows the information; and a fidelity of the current notification indicating a loss of value to the entity of the information upon truncation of the information.

28. Lefeber teaches that each notification source has parameters associated with it representing at least one of a message class of a current notification generated by the notification source indicating a type of communication of the current notification (paragraphs 49, 50, 60, 61.)

29. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Lefeber with Newell because Lefeber's message classes improves the system's flexibility (Lefeber, paragraph 11.)

30. Applicants' arguments filed on November 4, 2003 have been fully considered but they are not persuasive. As per applicants' arguments filed on November 4, 2002, the applicants argued in substance that Newell fails to disclose the notification parameters including at least one of a relevance parameter, a novelty parameter, and a fidelity parameter as claimed.

31. In reply, Newell discloses a variety of condition variables, including abstract concepts, variables indicating physical characteristics and physical observable characteristics (see column 2, lines 24-48). Therefore, Newell discloses "the notification parameters including at least one of" as claimed.

The applicants further argued that Newell does not show "employing a decision-theoretic analysis for transmitting notification" as claimed.

In reply, Newell discloses that the model includes current condition with a variety of condition variables that represent information (see column 3, lines 44-63). Newell further discloses that variables and related information includes abstraction or raw physiological data, current geographic information, emotional state, and behavior for different types of information. A current model is created from all those information (see column 4, lines 1-30). Newell further discloses that one or more models can be used to determine how to present the information. Therefore, Newell discloses the process of employing a decision-theoretic analysis for transmitting notification as claimed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zarni Maung whose telephone number is (703) 308-6687. The examiner can normally be reached on Monday-Friday from 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Meng An, can be reached on (703) 305-9678. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600.

January 13, 2004


ZARNI MAUNG
PRIMARY EXAMINER